

### REMARKS

This amendment responds to the Office Action which was mailed on January 12, 2006. In the claims, Claims 1-20 and 30-35 have been canceled and new Claims 36-55 substituted therefor. Claims 21-24 are allowed and remain in the case as originally filed, as do Claims 25-29. It is respectfully submitted that Claims 21-29 and 35-55 are in condition for allowance. Request a favorable reconsideration of this application in light of the amendment and the remarks set forth below which constitutes a full and complete response to the Office Action.

Claim 19 was objected to for insufficient antecedent basis for the limitation "the shell body." Claim 19 has been canceled and replaced by new Claim 54 which now recites "a shell body" and, therefore, should no longer be found objectionable.

Claims 25 and 28 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,612,857 to Beatty. It has been asserted that Beatty discloses a drag assembly comprising at least one streamer adapted to slow the descent of a canister. However, it is respectfully submitted that Beatty does not disclose the use of streamers as a drag assembly, but rather teaches the use of cloth streamers saturated with chemiluminescent fluid to act as location markers which can be launched from aircraft to generate a luminous display (see column 1, lines 11-16 and column 2, lines 45-49). The streamers are not intended to act as a drag assembly. In fact, Beatty teaches that small parachutes may be used to facilitate separation of the streamers, and that a weight (such as container or piston housing) may be attached to the streamers to more accurately deploy the streamers in a specific location (see column 4, lines 2-12). Therefore, it is

respectfully submitted that Beatty does not disclose streamers as a drag assembly and that Claims 25 and its dependent Claims 26-29 are in condition for allowance.

Claims 1, 6-15, and 17-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 4,218,976 to Luebbers in view of U.S. Pat. No. 5,522,320 to Dillehay and further in view of Beatty. However, Claim 1 has now been canceled and new Claim 36 substituted therefor. It is respectfully submitted that Claim 36 is patentable over the prior art cited, and should be considered in condition for allowance. More particularly, Claim 36 includes the limitations *"a canister for containing and protecting a smoke producing composition and dimensioned to be releasably secured within said payload compartment such that when said two part shell opens said canister is released, wherein said canister comprises a cylinder having a top and a bottom and includes a reinforcing plate affixed to the bottom of said cylinder,"* and *"a drag assembly attached to said canister, said drag assembly comprising one or more ribbon streamers adapted to slow the descent of said canister and reduce drifting."* As described in the foregoing, it is respectfully submitted that Beatty and/or any of the other prior art cited does not disclose a ribbon streamer drag assembly attached to a smoke material containing canister within a mortar cartridge. In addition, the prior art does not teach a canister having a reinforcing plate attached to its bottom and having said drag assembly.

Applicant's invention is designed to provide an airborne release of the smoke producing canister and to slow its descent while at the same time generating the smoke screen within a target area. Applicant found that without a drag assembly the smoke canister created little smoke since the canister would descend rapidly and even bury itself in the ground upon impact. On the other hand, use of parachutes resulted in the canister

drifting far from the target area and thus not creating the smoke screen in the desired location. Applicant conceived of the use of the ribbon streamers as a means for reducing the descent of the smoke canister to create a smoke screen, while avoiding the drift associated with parachutes so that the smoke screen occurs at the desired location.

In addition, applicant created a reinforced plate design for the canister so that the forces associated with mortar launch would not break up the solid smoke material compositions contained in the canister. Previous delivery of these types of solid, annular smoke producing compositions resulted in breakage of the material and poor smoke production, but applicant's design protects the composition keeping its structural integrity and thereby improving the smoke production.

Neither the reinforced smoke canister nor the ribbon streamer drag assembly are taught by the prior art cited, therefore it is respectfully submitted that Claim 36 and its dependent Claims 37-53 are patentable over the prior art cited and should be allowed.

Claims 19-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,661,257 to Nielson et al. in view of U.S. Patent No. 4,446,794 to Simmons. Claims 19 and 20 have been canceled and new Claims 54-55 substituted therefor. New Claim 54 recites "A canister for containing and protecting a smoke producing composition within a smoke producing cartridge, comprising: a right circular steel cylinder having a top and a bottom, dimensioned to be secured within a shell body of a 120mm mortar cartridge; *a steel reinforcing plate affixed to the bottom of the cylinder; and an attachment stud affixed to a bottom surface of the steel reinforcing plate for attaching a drag force assembly.*" It is respectfully submitted that Claim 54 should be considered patentable over the prior art cited because of the limitation of a steel

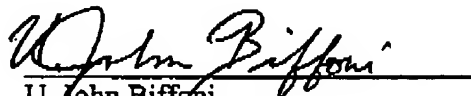
reinforcing plate and the attachment stud for the drag assembly. As discussed in the foregoing, applicant has reinforced the smoke containing canister in order to better maintain the structural integrity of the solid smoke composition contained therein and thereby improve smoke generation. Such a design limitation is not disclosed or taught in the prior art cited, and therefore Claim 54 and its dependent Claim 55 should be in condition for allowance.

Allowance of Claims 21-24 is appreciated and acknowledged, and these claims remain in the case as originally filed.

In summary, Claims 1-20 and 30-35 have been canceled. Claims 21-29 remain in the case as originally filed and based on the foregoing should be considered in condition for allowance. Finally, new Claims 36-55 have been submitted and based on the foregoing should also be considered in condition for allowance. Accordingly it is respectfully submitted that Claims 21-29 and 36-55 are patentable and in condition for allowance. Early reconsideration and withdrawal of the rejections is earnestly solicited, as is allowance of the claimed subject matter.

Respectfully submitted,

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DATE

  
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